

# NATIVE SEED NETWORK





Institute  
for  
Applied  
Ecology

501(c)(3) non-profit

Corvallis, Oregon

Our Mission:

*“to conserve native ecosystems through  
restoration, research and community  
education”*





Goal: Promote and support the use  
of native plants in habitat  
restoration.

NSN does not buy or sell seed



**NATIVE SEED  
NETWORK**

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## Recent Articles

Genetics Workshop

The New NSN Website!

## Willamette Valley Seed Increase Program

## Native Plants and their Uses

## Ecoregions as a resource for restoration

## Selecting Seed

## About Releases

## Bibliography

## Glossary

SEED IMPORT makes it easy to list your seed for sale

## Welcome to the Native Seed Network

The Native Seed Network is a resource for both the restoration community and the native seed industry, providing powerful search tools and information on all aspects of native seed.



## Are you looking for native seed?

Search seed for sale

Get species recommendations

### Are you a seed producer?

You can sell your native seed using our free marketplace (sellers must [register](#)).

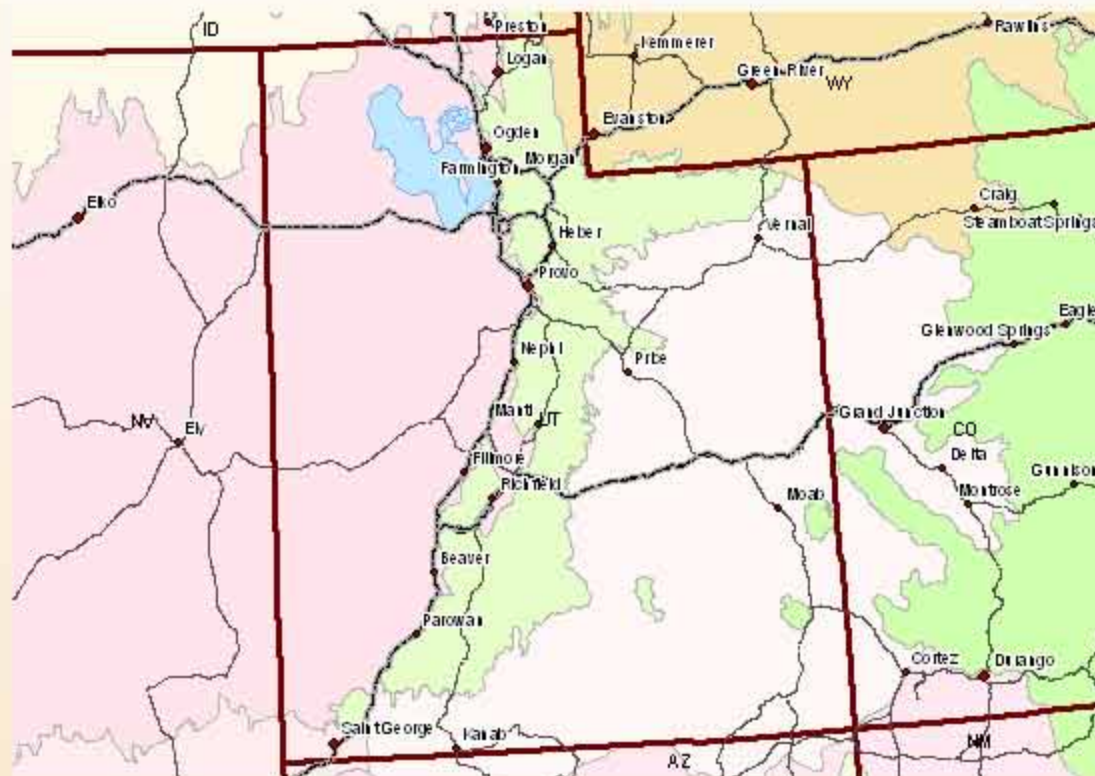
### Ecoregion Map

Select your project area



## Ecoregions in Utah

Select your project ecoregion:



or

Select an ecoregion... ▼

Species recommendations are arranged by project [ecoregion](#).





*If data is available, this is where you find Ecoregion Descriptions, Plant Communities of that ecoregion, and Species Lists/Recommendations for both. If you know the community types at your project site, use community recommendations as the species will be more appropriate and more specifically geared to your site.*

*If species recommendations are not available for your project area, try searching [seed for sale](#) in your ecoregion.*

[Where does NSN get species lists and recommendations?](#)

## Colorado Plateaus Ecoregion

Rugged tableland topography is typical of the Colorado Plateau ecoregion. Precipitous side-walls mark abrupt changes in local relief, often from 300 to 600 meters. The region is more elevated than the Wyoming Basin to the north and therefore contains a far greater extent of pinyon-juniper woodlands. However, the region also has large low lying areas containing saltbrush-greasewood (typical of hotter drier areas), which are generally not found in the higher Arizona/New Mexico Plateau to the south where grasslands are common.

[Get Species List](#)

## Colorado Plateaus Plant Communities

### Basin big sagebrush

Within the Intermountain West, basin big sagebrush can be found from 3,000 to 7,000 ft (914 to 2,140 m) elevation, with annual precipitation ranging from 9 to 16 inches (23 to 41 cm). A majority of the irrigated farmlands, dry farms, and dryland pastures within the Intermountain West were once dominated by basin big sagebrush.

[Get Species List](#)

### Black greasewood

Black greasewood occupies considerable acreages on salty valley bottoms. This plant also occurs on salt-bearing shale outcrops in canyons and on foothills. Sites vary in respect to soil texture and availability of ground water. Some areas are wet with high water tables, and others are dry with well-drained soils. Black greasewood occurs in pure or mixed stands. Livestock can safely consume moderate amounts of greasewood when it is eaten in conjunction with other forage. Black greasewood is not known to be poisonous to game animals and, in fact, has some forage value.

[Get Species List](#)










## Colorado Plateaus

### Sage Grouse Species

#### Community Species List

Click on column header to sort by column

For Sale	Scientific Name	Common Name	Growth Habit	Duration
	<a href="#">Agoseris glauca</a>	pale agoseris	Forb/herb	Perennial
	<a href="#">Agoseris heterophylla</a>	annual agoseris	Forb/herb	Annual
	<a href="#">Allium acuminatum</a>	tapertip onion	Forb/herb	Perennial
	<a href="#">Antennaria microphylla</a>	littleleaf pussytoes	Forb/herb	Perennial
	<a href="#">Astragalus filipes</a>	basalt milkvetch	Forb/herb	Perennial
	<a href="#">Astragalus lentiginosus</a>	freckled milkvetch	Forb/herb	Annual, Biennial, Perennial
	<a href="#">Astragalus purshii</a>	woollypod milkvetch	Forb/herb	Perennial
	<a href="#">Astragalus utahensis</a>	Utah milkvetch	Forb/herb	Perennial
	<a href="#">Balsamorhiza hookeri</a>	Hooker's balsamroot	Forb/herb	Perennial
	<a href="#">Balsamorhiza sagittata</a>	arrowleaf balsamroot	Forb/herb	Perennial
	<a href="#">Calochortus gunnisonii</a>	Gunnison's mariposa lily	Forb/herb	Perennial
	<a href="#">Calochortus macrocarpus</a>	sagebrush mariposa lily	Forb/herb	Perennial
	<a href="#">Calochortus nuttallii</a>	sego lily	Forb/herb	Perennial
	<a href="#">Cleome lutea</a>	yellow spiderflower	Forb/herb	Annual
	<a href="#">Cleome serrulata</a>	Rocky Mountain beeplant	Forb/herb	Annual
	<a href="#">Collinsia parviflora</a>	maiden blue eyed Mary	Forb/herb	Annual
	<a href="#">Collomia linearis</a>	tiny trumpet	Forb/herb	Annual



## Plant Detail

### muttongrass - *Poa fendleriana*



Symbol	POFE
Common Name	muttongrass
Scientific Name with Author	<i>Poa fendleriana</i> (Steud.) Vasey
Family	Poaceae
Growth Habit	Graminoid
Duration	Perennial
U.S. Nativity	Native to U.S.

[View NRCS Plant Profile for \*Poa fendleriana\*](#)

[Google Image Search for \*Poa fendleriana\*](#)

This seed is for sale in the marketplace:

Click on column header to sort by column

For Sale	Source State - County	Source Ecoregion	Release Name	Certification	Quantity Available	Price	Company
	CO - Montezuma				ask	ask	<a href="#">Southwest Seed Inc.</a>
	ID				ask	ask	<a href="#">CSR inc.</a>
	WA				ask	ask	<a href="#">Rainier Seeds, Inc</a>

Note: If this species has [releases](#), the list of releases will not include [synonyms](#)





## Seed For Sale

### muttongrass - *Poa fendleriana*



Symbol	POFE
Seed Type	Field Grown
Generation	3
Certification	Certified Source Identified
Source State	CO
Source County	Montezuma
Source Site	UP Ruins Canyon
Source Elevation	6000.0 ft
Date Available	2011-01-19
Quantity Available	ask
Price	ask
Last Updated	2011-01-19
Comments	Uncompahgre Plateau seed stock.

### Available From:

Name	Robby Henes
Company	Southwest Seed Inc.
Title	Operations Manager
Address	13260 Rd. 29 Dolores, CO 81323
Primary Phone	970-565-8722
Fax	970-565-2576
Web site	<a href="http://www.southwestseed.com">www.southwestseed.com</a>
Email	<a href="#">Login to view email</a>

## Releases

All seed has a history. Where did it originate? How was it collected? What's been done with it after collection? Were selections made to favor certain attributes (such as disease resistance, cold-tolerance, or seed yield)?

Our goal is to provide you with answers to these questions so you may make informed decisions about what seed will be best for your project.

Click the *release name* (not the scientific name) below for detailed information.



## What are plant releases?

Click on column header to sort by column

Symbol	Scientific Name	Release Name	Common Name
ACMIO	<a href="#">Achillea millefolium var. occidentalis</a>	<a href="#">Great Northern Germplasm</a>	western yarrow
ACHY	<a href="#">Achnatherum hymenoides</a>	<a href="#">Bonneville</a>	Indian ricegrass
ACHY	<a href="#">Achnatherum hymenoides</a>	<a href="#">Nezpar</a>	Indian ricegrass
ACHY	<a href="#">Achnatherum hymenoides</a>	<a href="#">Paloma</a>	Indian ricegrass
ACHY	<a href="#">Achnatherum hymenoides</a>	<a href="#">Rimrock</a>	Indian ricegrass
ACHY	<a href="#">Achnatherum hymenoides</a>	<a href="#">Star Lake</a>	Indian ricegrass
ACHY	<a href="#">Achnatherum hymenoides</a>	<a href="#">White River</a>	Indian ricegrass
AEAM	<a href="#">Aeschynomene americana</a>	<a href="#">F-149</a>	shyleaf
AMAL2	<a href="#">Amelanchier alnifolia</a>	<a href="#">Kendrick Germplasm</a>	Saskatoon serviceberry
AMAL2	<a href="#">Amelanchier alnifolia</a>	<a href="#">Newport Germplasm</a>	Saskatoon serviceberry
AMAL2	<a href="#">Amelanchier alnifolia</a>	<a href="#">Okanogan Germplasm</a>	Saskatoon serviceberry
AMBR	<a href="#">Ammophila breviligulata</a>	<a href="#">Cape</a>	American beachgrass
AMBR	<a href="#">Ammophila breviligulata</a>	<a href="#">Hatteras</a>	American beachgrass
AMFR	<a href="#">Amorpha fruticosa</a>	<a href="#">Illinois Covey Germplasm</a>	desert false indigo
AMFR	<a href="#">Amorpha fruticosa</a>	<a href="#">Iowa Covey Germplasm</a>	desert false indigo



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## Release: White River - Indian ricegrass

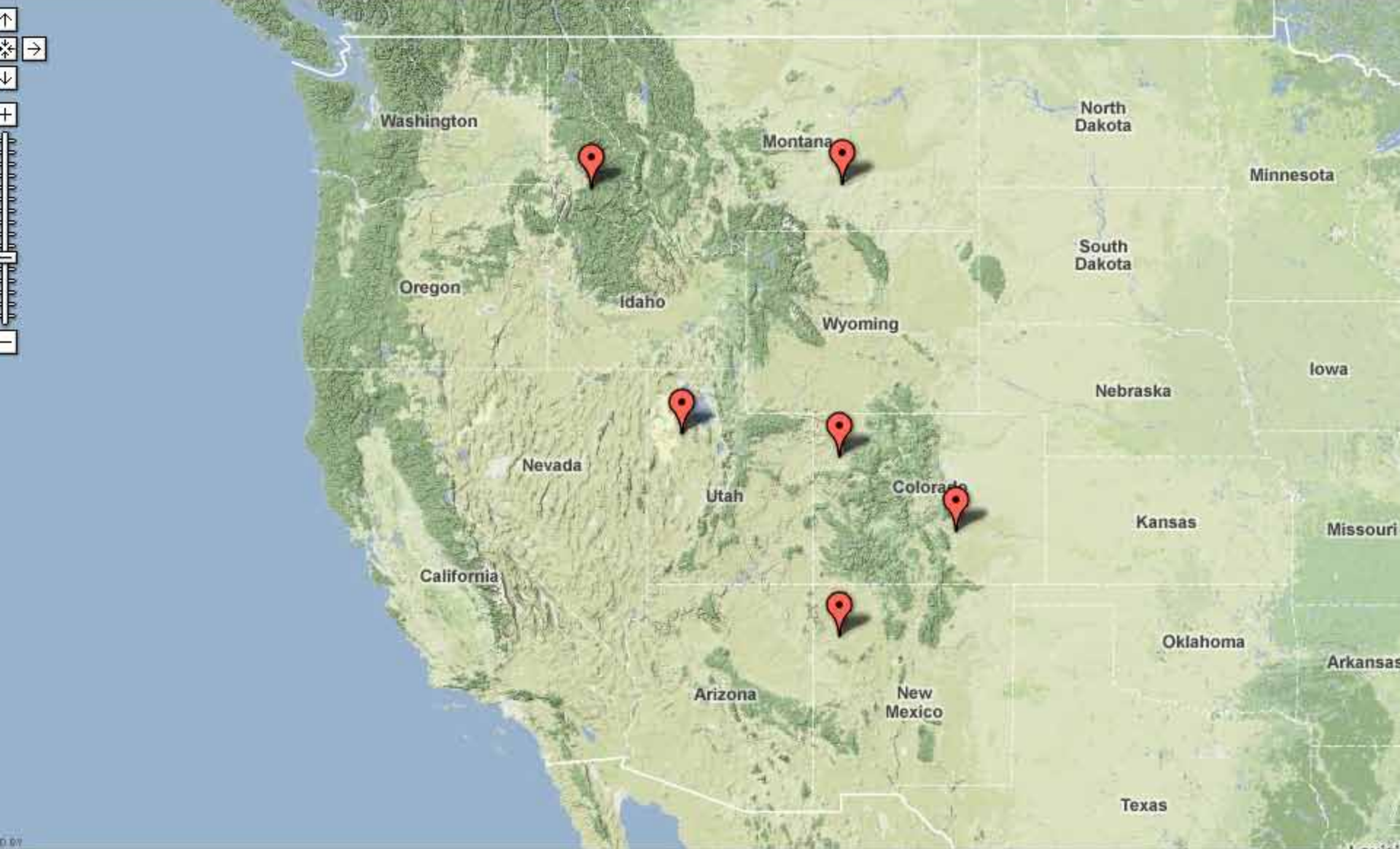
This release is not currently available in the marketplace

<b>Symbol</b>	ACHY
<b>Release Name</b>	White River
<b>Release Type</b>	selected
<b>Description</b>	White River combines good seed yield with high germinability. The White River site receives 10-12" average annual precipitation.
<b>Breeding Method</b>	PI 232329 was identified as a highly germinable accession. This native-site population exhibited seed polymorphism and PI 232329 represents the small-seed morph rather than the large-seed morph. Thirty-two parent plants were selected from PI 232329 based on high seed yield and germinability.
<b>Intended Use</b>	Intended for wildland restoration and mineland rehabilitation on valley, foothill, and mountain rangelands in western Colorado, eastern Utah, and southwestern Wyoming.
<b>Release Info</b>	to be released 2004, USDA-ARS, Logan, Utah, the Utah Agricultural Experiment Station, and USDA-NRCS; Selected class pre-variety germplasm (genetically manipulated track). Seed will not be available until 2006.
<b>Information Sources</b>	T.A. Jones, USDA-ARS Forage and Range Research Laboratory, Logan, UT
<b>Source State</b>	CO
<b>Source County</b>	Rio Blanco
<b>Source Ecoregion</b>	Colorado Plateaus

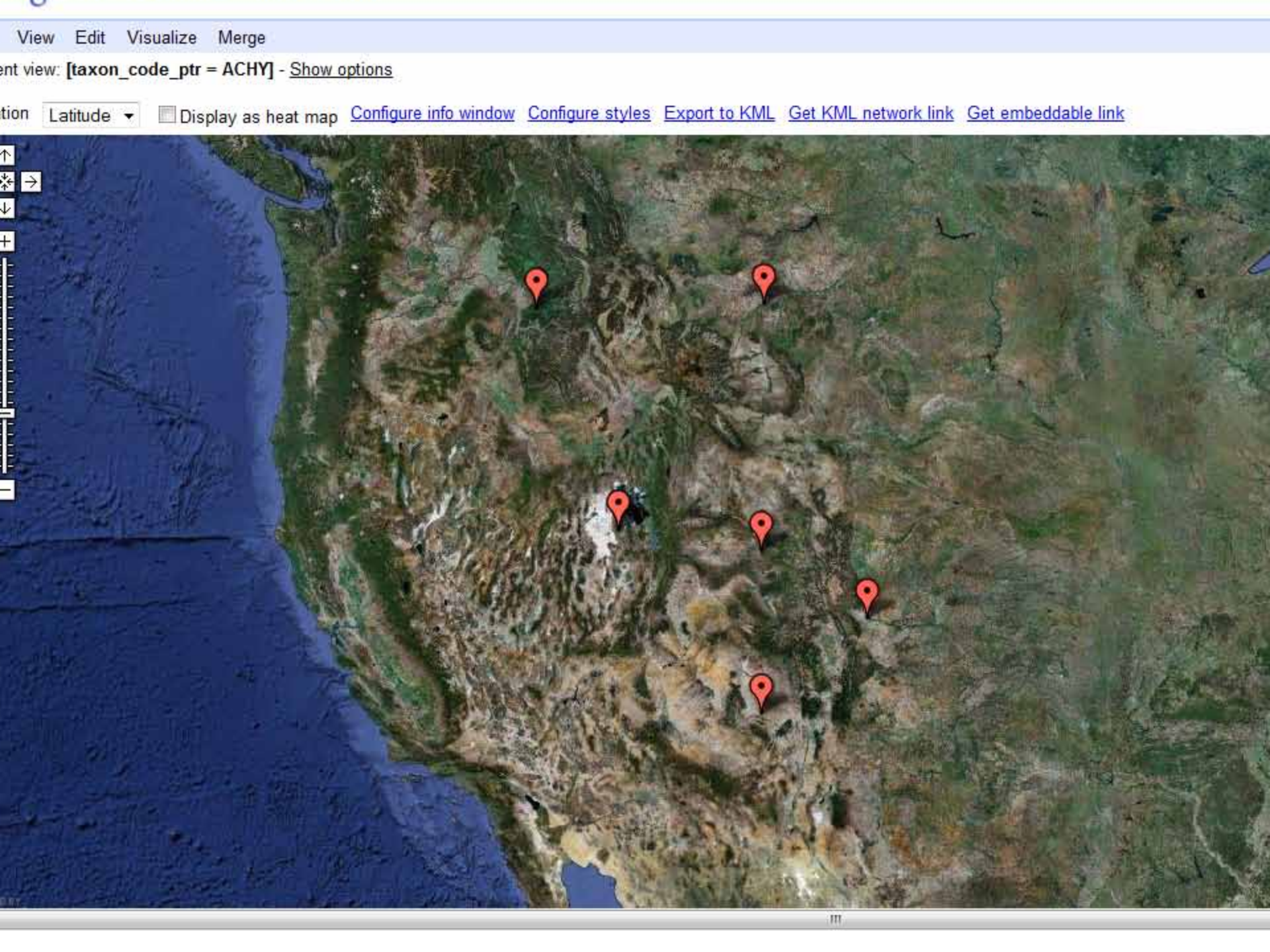














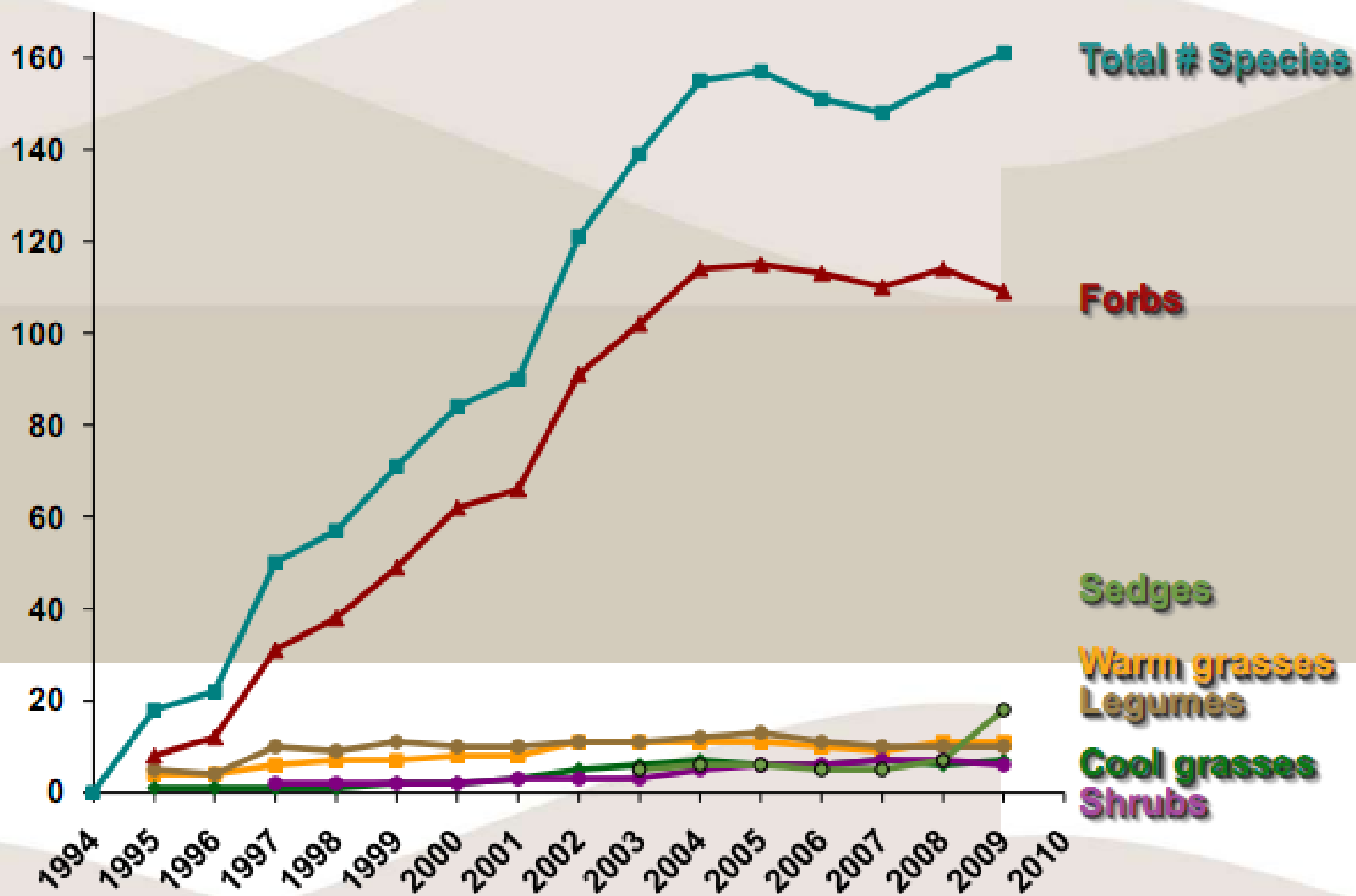
How many seed zones?

How much money do you have?

# Tallgrass Prairie Biome



# Total Iowa SI Species







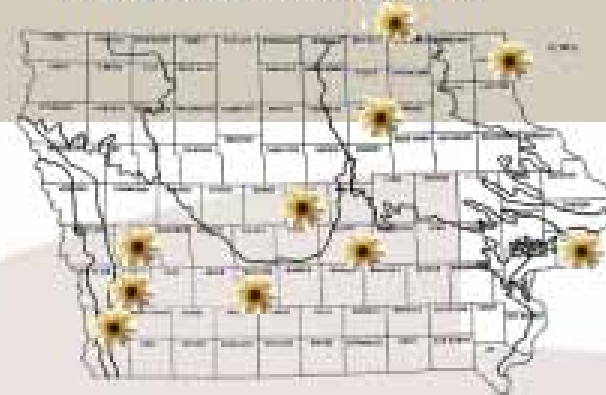
# Commercial Producers

## Managing Expectations



- Must yellow tag certify
- Pay certification fees
- Annual field inspections
- Properly label seed
- Cultivate trust with clients/customers

## Grower Locations



[Get Directions](#) [My Maps](#)

[Collaborate](#) [Import](#)

Done

Saved

Title

Untitled

Description

Privacy and sharing settings [Learn more](#)

☐ **Public** - Shared with everyone. This map will be published in search results and user profiles.

☒ **Unlisted** - Shared only with selected people who have this map's URL.

 [Shoulder to Shoulder Farm](#)

 [Oregon Military Dept.](#)

 [Frosty Hollow Ecological Restoration](#)

 [Four Seasons Seed Company](#)

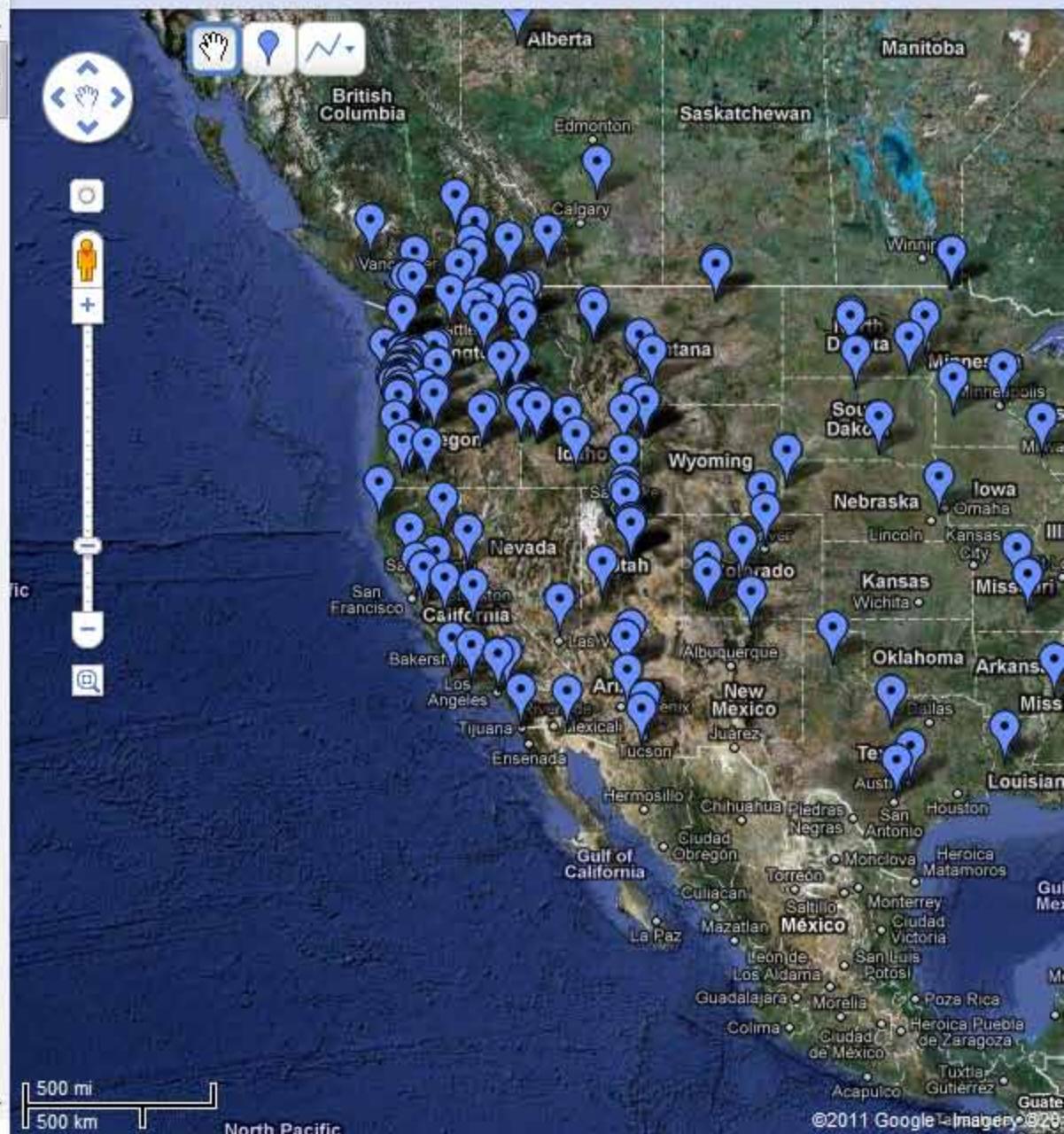
 [The Farm at Tickle Creek Inc](#)

 [Oregon Wholesale Seed Company](#)

 [Seeds Trust, High Altitude Gardens](#)

 [Sunmark Seeds International, Inc.](#)

 [Sierra Seed Supply](#)









RESEARCH ARTICLE

# Can an Ecoregion Serve as a Seed Transfer Zone? Evidence from a Common Garden Study with Five Native Species

Stephanie A. Miller,<sup>1,2</sup> Amy Bartow,<sup>3</sup> Melanie Gisler,<sup>1</sup> Kimiora Ward,<sup>1</sup> Amy S. Young,<sup>1</sup>  
and Thomas N. Kaye<sup>1,4</sup>

## Abstract

Prairie restoration is often limited by the availability of appropriate local plant materials. Use of locally adapted seed is a goal in restoration, yet little information to inform seed transfer guidelines is available for native plant species. We established common gardens of five plants

distance was significantly correlated with geographic distance in *L. polyphyllus* var. *polyphyllus*, and population of this species differed significantly among geographic groups within an ecoregion. Little or no spatial structure was detected in the remaining species, despite correlations between ordination scores and monthly temperatures.

# What is the right seed?

Plant materials have histories

Geographic component

- Where did it come from?

Genetic component

- What has been done with it since collection?



# Improved Plant Materials

- Selected and tested over multiple generations
- Distinct, uniform, and stable
- Narrow genetic base

=Agronomic

=cheap

# Plant Materials for Biodiversity

- Close to wild genotype
- Increased in as few generations as possible
- Broad genetic base

=Messy

=Expensive



# 5 Steps to Native Seed

0. Evaluate what's already available
1. Know the biology of the species
2. Determine acceptable seed zone
3. Collect from many populations within zone
4. Growout: break dormancy
5. Increase in as few generations as possible

Are your objectives being met?

Who should do the research?

# National Native Seed Conference

*Native Plant Materials Development, Production & Use in Habitat Restoration*



## Program & Schedule of Activities

Snowbird, Utah  
May 17-21, 2010



- 220 attendees
- 33 states
- 5 countries
- 2 field trips
- 3 ½ days of talks
- 70 presentations
- 40 posters
- 14 exhibits





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## Plant Materials Centers and Service Areas

